

APPROVED BY:

DATE		THIN/TW/N		CONDUIT	
NO. OF SETS	N	Y	X	6	Ø
1				22.0	Ø3
					PVC

PROJECT: 21ST CENTURY CLASSROOM 5 - STOREY  
ADDRESS: USTP Villabonera, Misamis Oriental  
DATE: 11-Jun-22  
FEDBACK:

CCT No.	POLES	CB	CB TRIP	AF	LOAD DESCRIPTION	KW	Ø AN	Ø BN	Ø CN	3Ø	NO. OF SETS	THIN/TW/N						CONDUIT
												N	Y	X	6	Ø	TYPE	
1	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.6	200	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
2	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.6	200	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
3	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.6	200	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
4	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.6	200	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
5	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.6	200	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
6	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.6	200	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
7	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.6	200	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
8	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.6	200	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
TOTAL																		

CCT No.	POLES	CB	CB TRIP	AF	LOAD DESCRIPTION	KW	Ø AN	Ø BN	Ø CN	3Ø	NO. OF SETS	THIN/TW/N						CONDUIT
												N	Y	X	6	Ø	TYPE	
9	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
10	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
11	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
12	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
13	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
14	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
15	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
16	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
17	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
18	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
19	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
20	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
21	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
22	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
23	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
24	2	20	63	63	1-32W 18 LED FLOURESCENT LIGHT MOUNTED WITH INDUSTRIAL HOUSING AND SUPPORT - 12	1.5	Ø3	Ø3	Ø3	Ø3	Ø3	3.5	3.5	20	PVC			
TOTAL																		

TYPE	NO.	LOAD FACTOR	DEMAND	POWER FACTOR	DEMAND	NO. OF SETS	THIN/TW/N	CONDUIT
BIKEST FLOOR LIGHTS	15.50	0.8	12.40	1	31.73	25.00	Ø3	
CLO	28.05	0.8	21.75	0.8	98.75	25.00	Ø3	
WATER HEATER	0	0	0	0	0	0	Ø3	
RANGE	0	0	0	0	0	0	Ø3	
CLOTHES DRYER	0	0	0	0	0	0	Ø3	
WASH MACHINE	0	0	0	0	0	0	Ø3	
AIRCON	0	0	0	0	0	0	Ø3	
HOTWATER UNIT	0	0	0	0	0	0	Ø3	
HOTWATER UNIT	0	0	0	0	0	0	Ø3	
OTHERS 1	0	0	0	0	0	0	Ø3	
OTHERS 2	0	0	0	0	0	0	Ø3	
OTHERS 3	0	0	0	0	0	0	Ø3	
TOTAL	54.55	0.80	43.65		129.18	181.47		

FOR



REPUBLIC OF THE PHILIPPINES  
UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES  
INFRAStructure PLANNING AND FACILITY DEVELOPMENT UNIT  
CLAY M. BERTS AVENUE, LIPATAN, CAGAYAN DE ORO CITY 9000  
TELEPHONE: (083) 71-48-58 / (083) 71-48-59 / (083) 71-48-60  
WEBSITE: www.ustip.edu.ph

PROFESSIONAL ELECTRICAL ENGINEER  
REG. NO.:  
DATE:  
PAGE:

PROJECT: PROPOSED 21ST CENTURY 5 STOREY CLASSROOM BUILDING  
LOCATION: USTP WILAMBERA CAMPUS, MISAMIS ORIENTAL  
OWNER: UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

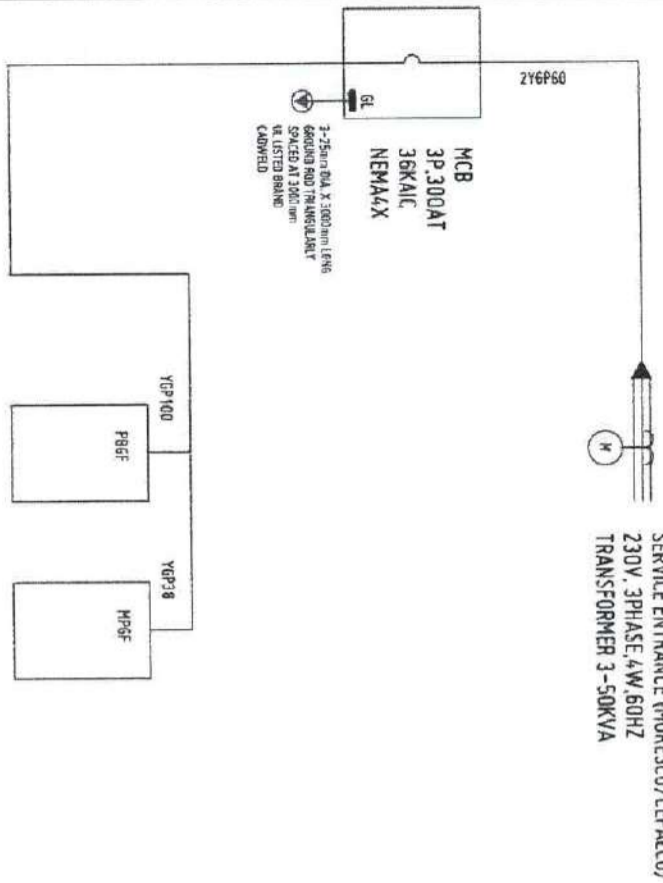
RECOMMENDING ENGINEER:  
MR. SERGIO ALONSO

RECOMMENDING ENGINEER:  
ATTY. ERWIN B. BACOTE

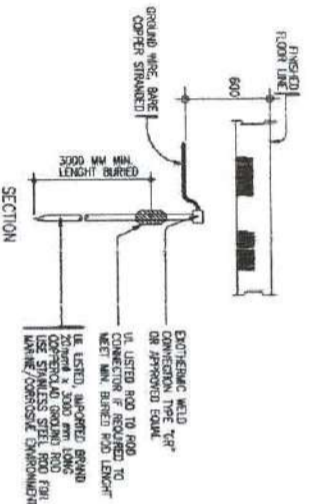
APPROVED BY:  
DR. AMOROSO, CULTURA II

SHEET CONTENTS:  
DATE DRAWN:  
DATE CHECKED:

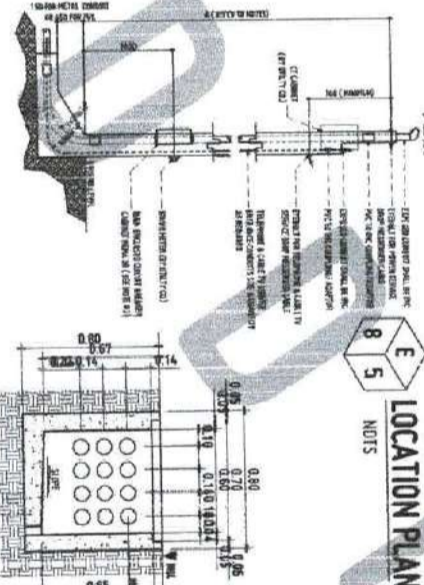
SERVICE ENTRANCE (MORESCO/CEPALCO)  
230V, 3PHASE, 4W, 60HZ  
TRANSFORMER 3-50KVA



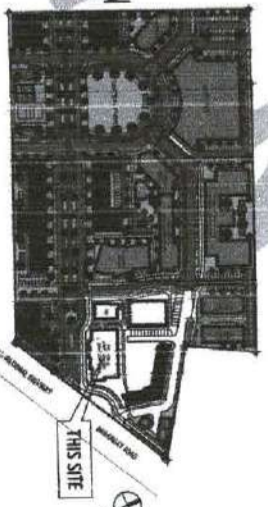
**8 1** NOTES  
**TYPICAL GROUND ROD DETAIL**



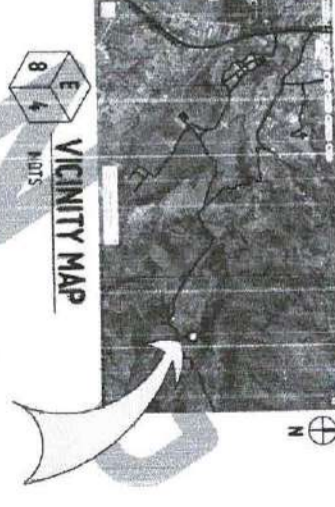
**8 3** NOTES  
**SERVICE PEDESTAL DETAIL**



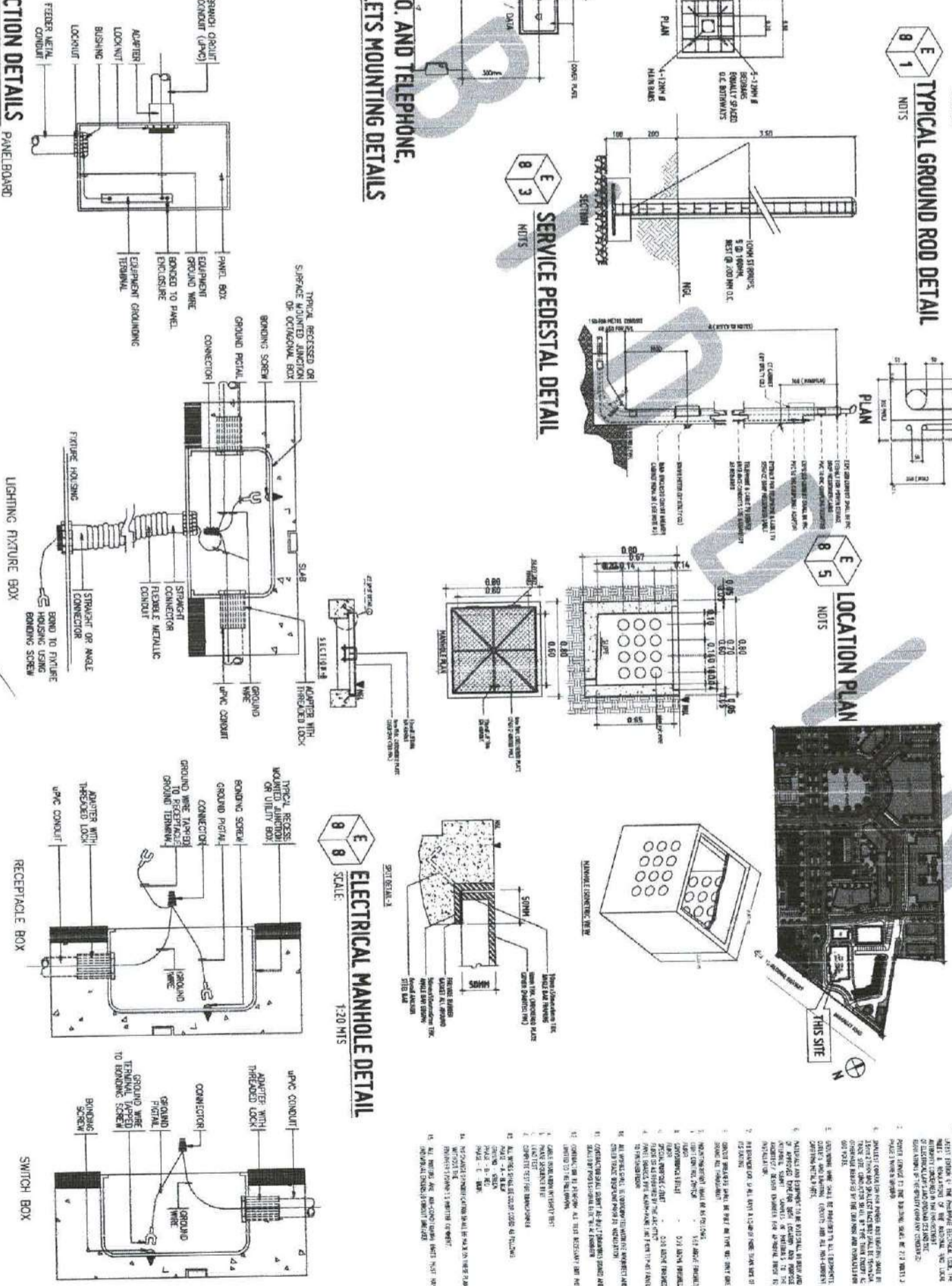
**8 5** NOTES  
**LOCATION PLAN**



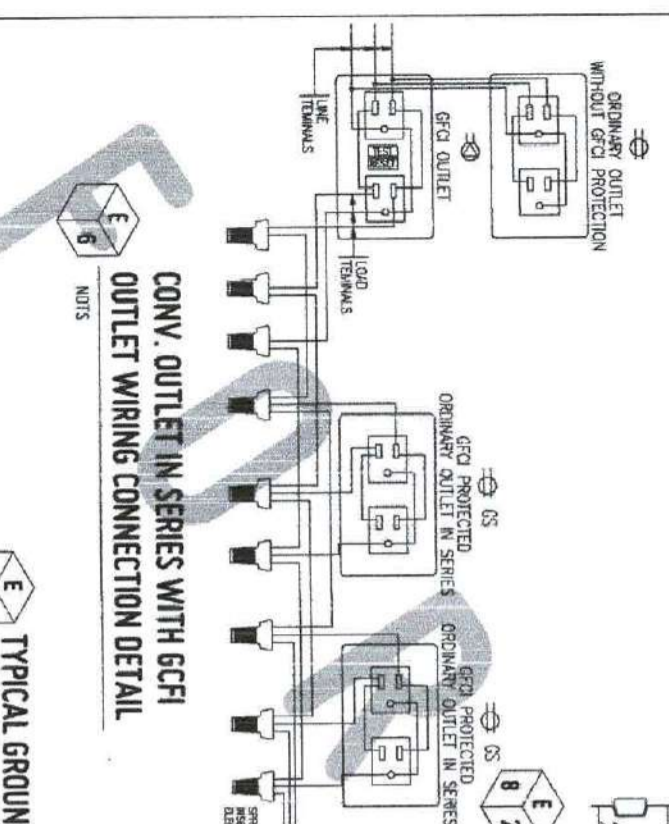
**8 4** NOTES  
**VICINITY MAP**



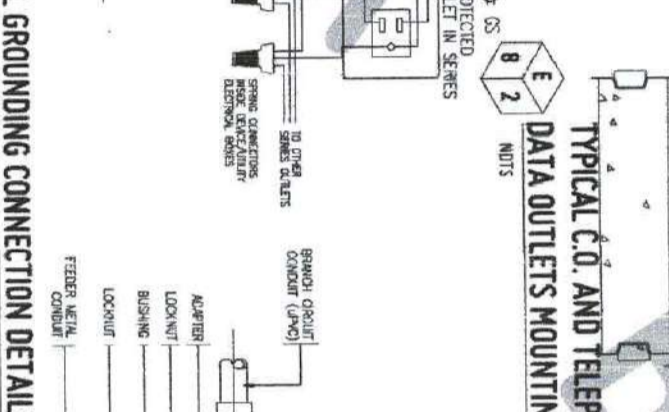
**8 2** NOTES  
**TYPICAL GROUNDING CONNECTION DETAILS**



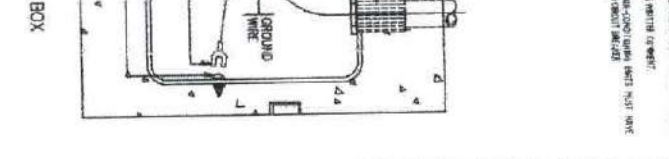
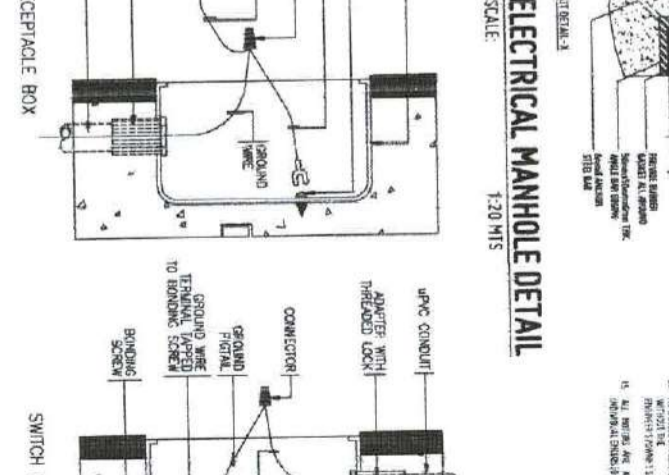
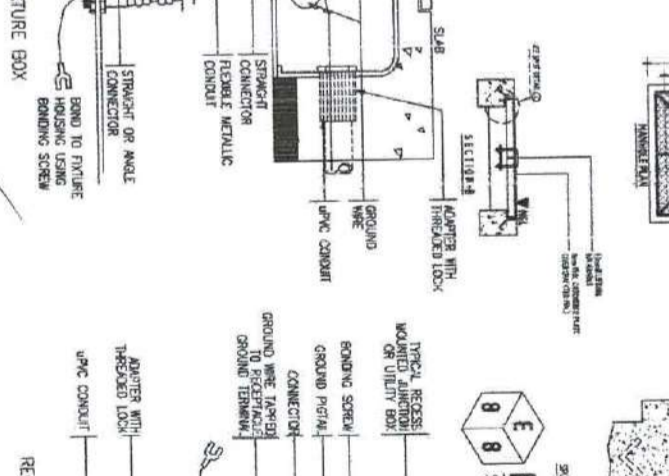
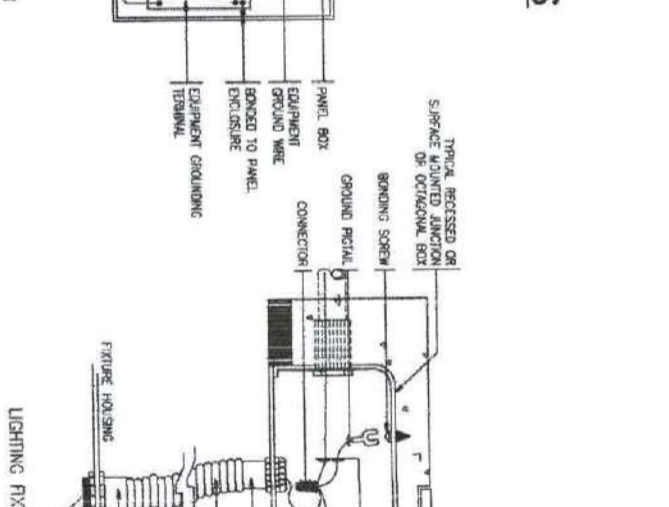
**8 2** NOTES  
**TYPICAL C.O. AND TELEPHONE DATA OUTLETS MOUNTING DETAILS**



**8 6** NOTES  
**CONV. OUTLET IN SERIES WITH GCFI OUTLET WIRING CONNECTION DETAIL**



**8 7** NOTES  
**TYPICAL GROUNDING CONNECTION DETAILS**



REPUBLIC OF THE PHILIPPINES  
 OFFICE OF THE BUILDING OFFICIAL  
 WILAMANDA, MARIKINA CITY

**USTIP**

UNIVERSITY OF THE PHILIPPINES  
 CLAYTON DEPARTMENT OF ELECTRICAL ENGINEERING  
 CLAYTON DEPARTMENT OF ELECTRICAL ENGINEERING  
 CLAYTON DEPARTMENT OF ELECTRICAL ENGINEERING

PROPOSED 21ST CENTURY 5 STOREY CLASSROOM BUILDING  
 USTP WILAMANDA CAMPUS, MARIKINA CITY  
 UNIVERSITY OF THE PHILIPPINES

RECOMMENDING APPROVAL:  
 ATTY. ERWIN B. BOGOS  
 RECOMMENDING APPROVAL:  
 DR. AMPAROSA CULTURA II

APPROVED BY:  
 DR. AMPAROSA CULTURA II

SHEET CONTENTS:  
 1. ELECTRICAL SYMBOLS  
 2. ELECTRICAL SCHEDULE  
 3. ELECTRICAL CONNECTIONS  
 4. ELECTRICAL MANHOLE DETAIL  
 5. ELECTRICAL MANHOLE DETAIL  
 6. ELECTRICAL MANHOLE DETAIL  
 7. ELECTRICAL MANHOLE DETAIL  
 8. ELECTRICAL MANHOLE DETAIL  
 9. ELECTRICAL MANHOLE DETAIL  
 10. ELECTRICAL MANHOLE DETAIL

DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_

**E8**



REPUBLIC OF THE PHILIPPINES  
 UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES  
 CLAYTON DE OCHOA CAMPUS  
 INTEGRATING PLANNING AND FACILITY DEVELOPMENT UNIT  
 CLAYTON DE OCHOA CAMPUS, LAJUNGA CAVITE  
 TELEPHONE: (0368) 71-28-25 / (0368) 71-28-26 / (0368) 71-28-27 FAX: (0368) 71-28-28 / (0368) 71-28-29 / (0368) 71-28-30  
 WEBSITE: www.usstp.edu.ph

PROFESSIONAL MECHANICAL ENGINEER  
 REG. NO.:  
 DATE:  
 PLACE:

PROJECT LOCATION  
 PROPOSED 21ST CENTURY 5 STOREY CLASSROOM BUILDING  
 USTP WILLAGENA CAMPUS, MECANE GENERAL  
 UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING ARCHITECT  
 AN FERDINAND FERDINAND  
 DIRECTOR, USTP

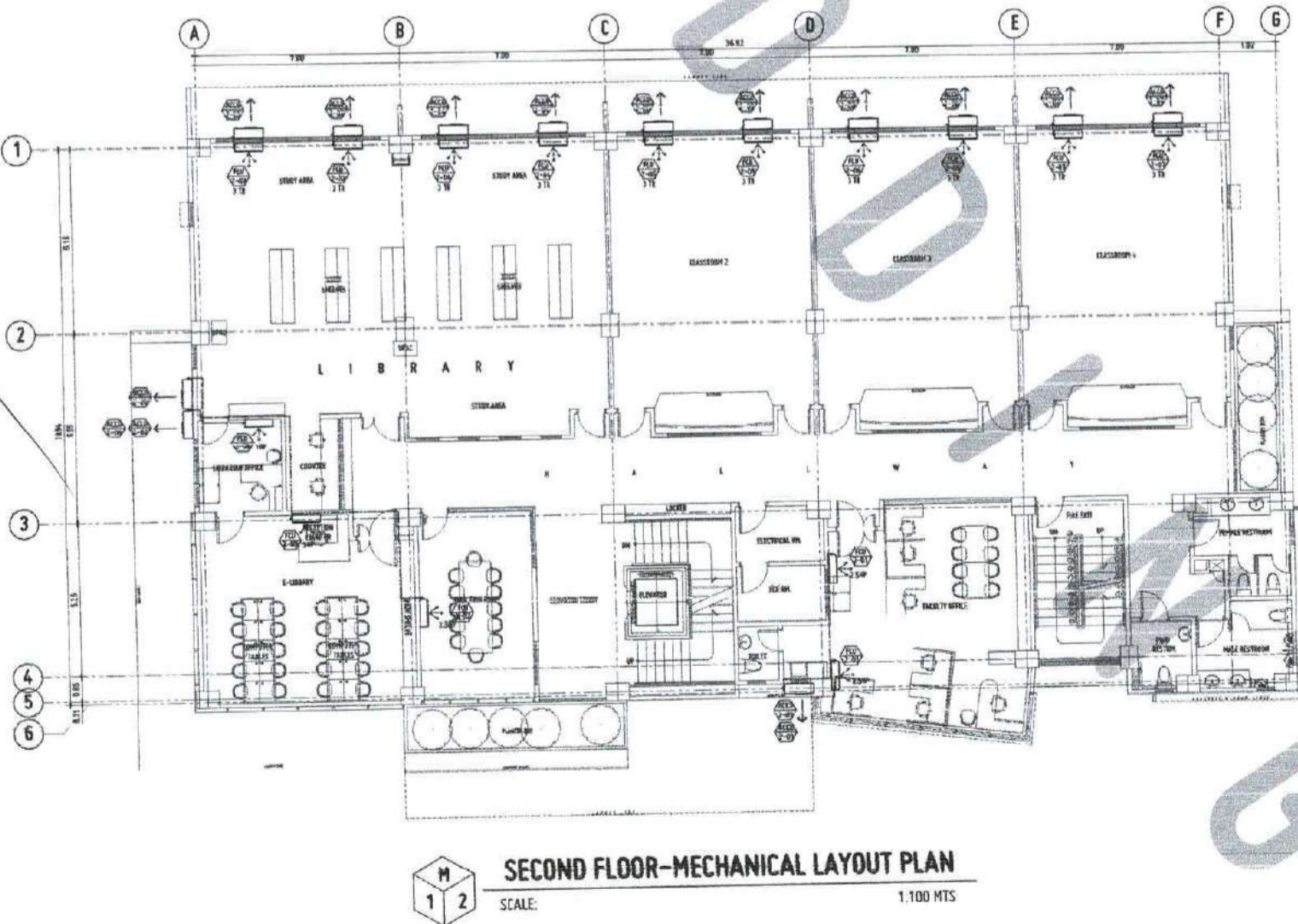
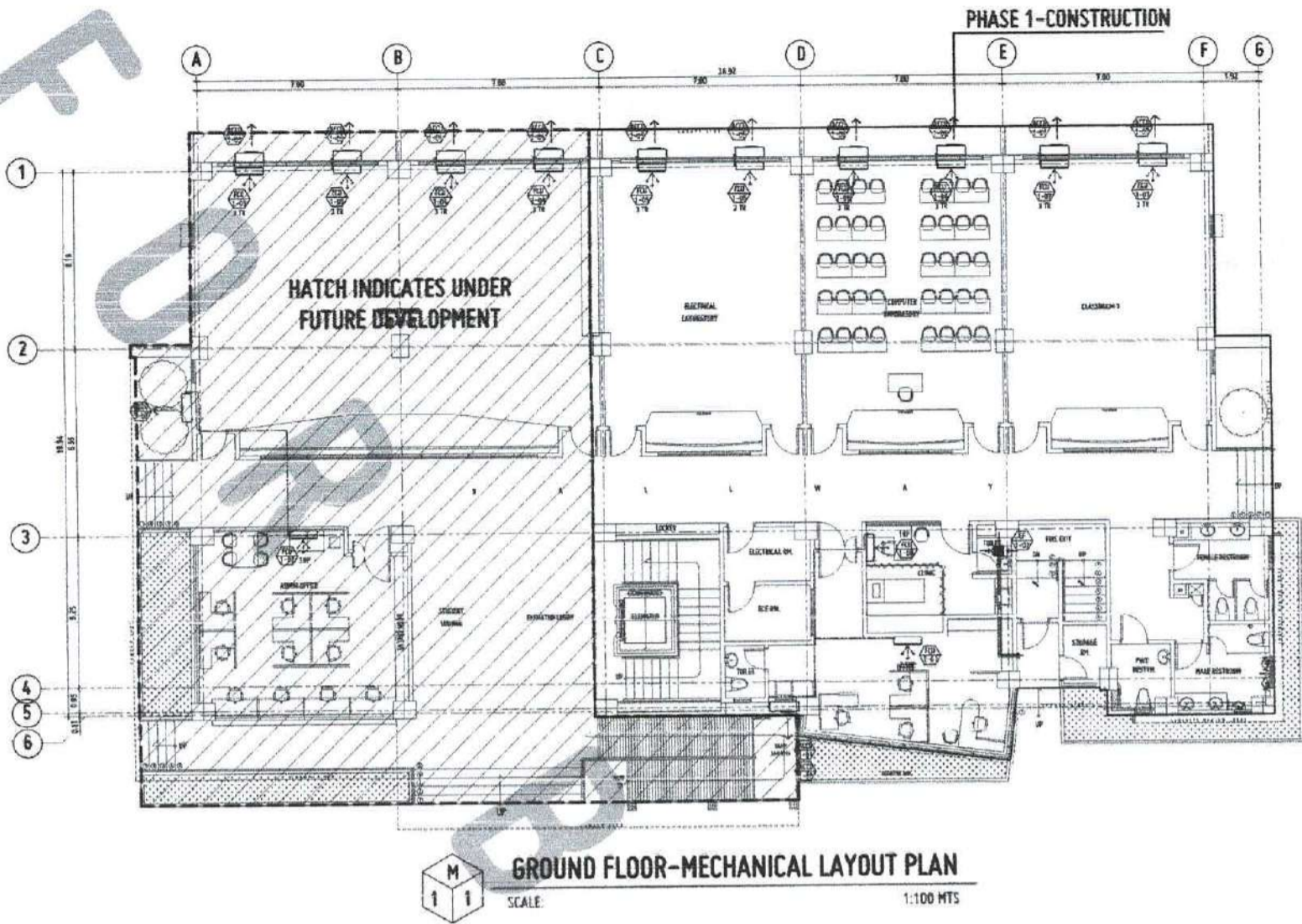
RECEIVING APPROVAL:  
 ATTY. ERWIN B. BOGUE  
 USTP-LEGAL OFFICE/GENERAL COUNSEL AFFAIRS

APPROVED BY:  
 DR. ANTONIO B. CULTURA II  
 PRESIDENT, USTP SYSTEM

SHEET CONTENTS:  
 GROUND FLOOR-MECHANICAL LAYOUT PLAN  
 SECOND FLOOR-MECHANICAL LAYOUT PLAN

DATE:

M1

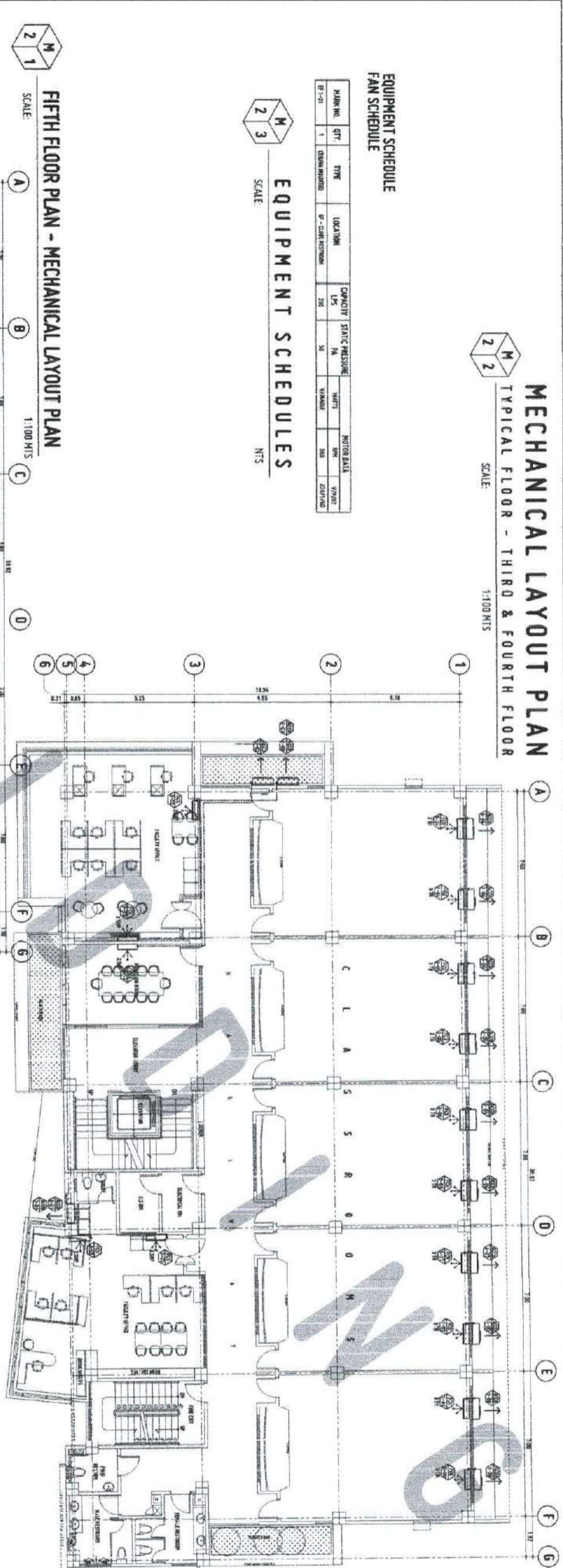


- REVISIONS:
1. TO CORRECT THE HATCH INDICATING UNDER FUTURE DEVELOPMENT.
  2. TO CORRECT THE HATCH INDICATING UNDER FUTURE DEVELOPMENT.
  3. TO CORRECT THE HATCH INDICATING UNDER FUTURE DEVELOPMENT.
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  20. TO CORRECT THE HATCH INDICATING UNDER FUTURE DEVELOPMENT.

APPROVED BY:  
 REPUBLIC OF THE PHILIPPINES  
 OFFICE OF THE BUILDING OFFICIAL  
 WILLAGENA, MECANE GENERAL

# MECHANICAL LAYOUT PLAN TYPICAL FLOOR - THIRD & FOURTH FLOOR

SCALE: 1:100 MTS



### EQUIPMENT SCHEDULE

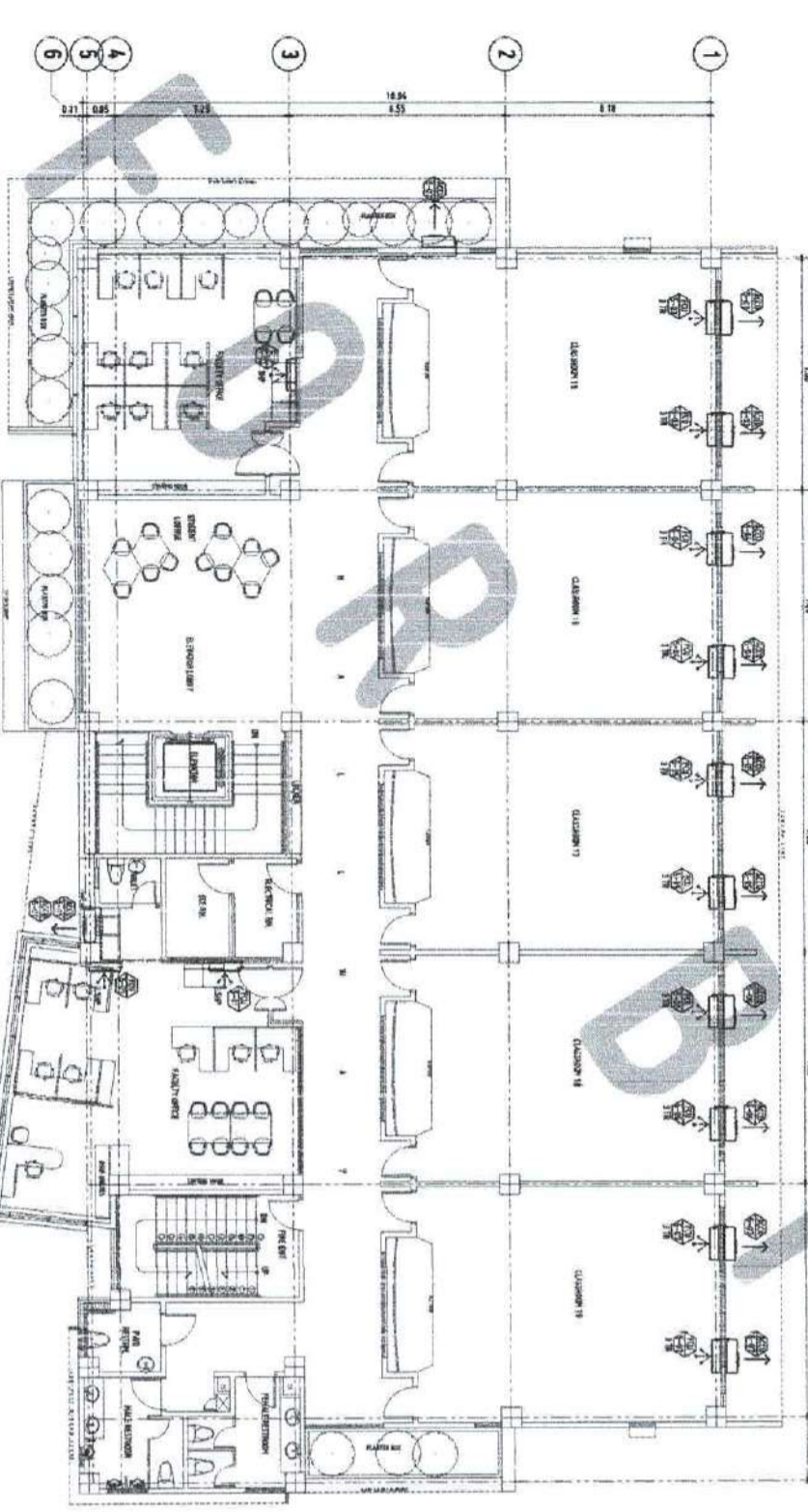
MARK NO.	QTY	TYPE	LOCATION	CAPACITY L/S	STATIC PRESSURE PA	WATT	MOTOR BAL. MM	VVVF 220V/140V
BT-01	1	CENTRAL UNIT	BT - CORRIDOR	200	50			

## EQUIPMENT SCHEDULES

SCALE: 1:100 MTS

### FIFTH FLOOR PLAN - MECHANICAL LAYOUT PLAN

SCALE: 1:100 MTS



### EQUIPMENT SCHEDULE

#### SPLIT-TYPE AIR CONDITIONING UNIT SCHEDULE

MARK NO.	QTY	TYPE	LOCATION	CAPACITY (RT)	SPLIT-FAN		OPERATING ENERGETIC		COMPRESSION DATA		REMARKS/NOTES
					WATT	WATT	WATT	WATT	WATT	WATT	
AC01-01	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-02	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-03	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-04	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-05	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-06	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-07	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-08	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-09	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-10	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-11	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-12	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-13	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-14	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-15	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-16	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-17	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-18	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-19	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-20	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-21	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-22	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-23	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-24	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-25	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-26	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-27	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-28	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-29	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-30	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-31	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-32	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-33	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-34	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-35	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-36	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-37	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-38	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-39	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-40	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-41	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-42	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-43	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-44	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-45	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-46	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-47	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-48	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-49	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-50	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-51	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-52	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-53	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-54	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-55	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-56	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-57	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-58	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-59	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE
AC01-60	1	WALL MOUNTED	BT - FACULTY OFFICE	2.5 RT	VARIABLE	VARIABLE	400	400	1.0	1.0	BT - FACULTY OFFICE



UNIVERSITY OF THE PHILIPPINES  
OFFICE OF THE CHIEF ENGINEER  
INFRASTRUCTURE PLANNING AND FACILITY DEVELOPMENT UNIT  
CLAY N. RECTO AVENUE, LAKAS, CALAPAN CITY, PANGASINAN  
TELEPHONE: (0932) 71-48-48 / (0938) 884-1738 / 665-1738 (TEL. FAX) 0938-884-6885  
WEBSITE: www.ustip.edu.ph

PROPOSED 21ST CENTURY 5 STOREY CLASSROOM BUILDING  
UNIVERSITY OF THE PHILIPPINES  
WILLAMINA CAMPUS, MARIKINA CITY

RECOMMENDING ENGINEER:  
**AR. FERDINAND A. ALARCON**  
DIRECTOR, USTIP

RECOMMENDING ARCHITECT:  
**DR. AMBROSIO S. CULTURA II**  
PROFESSOR, USTIP

APPROVED BY:  
**DR. AMBROSIO S. CULTURA II**  
PROFESSOR, USTIP

SHEET CONTENTS:  
TYPICAL FLOOR - THIRD & FOURTH  
EQUIPMENT SCHEDULES  
FIFTH FLOOR PLAN -  
MECHANICAL LAYOUT PLAN

DATE: \_\_\_\_\_  
SCALE: \_\_\_\_\_

USTIP

OFFICE OF THE PHILIPPINES  
OFFICE OF THE BUILDING OFFICIAL  
WILLAMINA, MARIKINA CITY

APPROVED BY:

1. ALL CONTRACTORS SHALL BE REGISTERED WITH THE BUREAU OF FIRE PROTECTION.
2. ALL CONTRACTORS SHALL BE REGISTERED WITH THE BUREAU OF ELECTRICAL ENGINEERING AND MECHANICAL ENGINEERING.
3. ALL CONTRACTORS SHALL BE REGISTERED WITH THE BUREAU OF MECHANICAL ENGINEERING.
4. ALL CONTRACTORS SHALL BE REGISTERED WITH THE BUREAU OF ELECTRICAL ENGINEERING AND MECHANICAL ENGINEERING.
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10. ALL CONTRACTORS SHALL BE REGISTERED WITH THE BUREAU OF ELECTRICAL ENGINEERING AND MECHANICAL ENGINEERING.

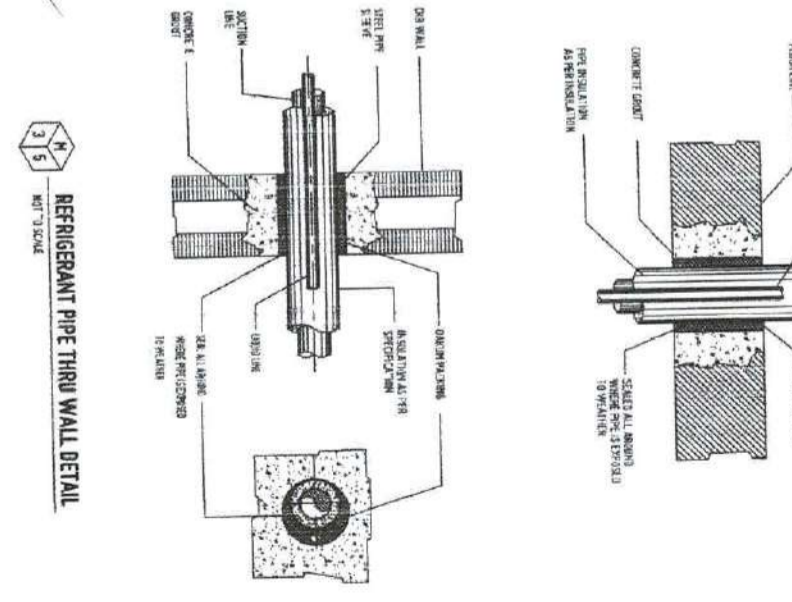
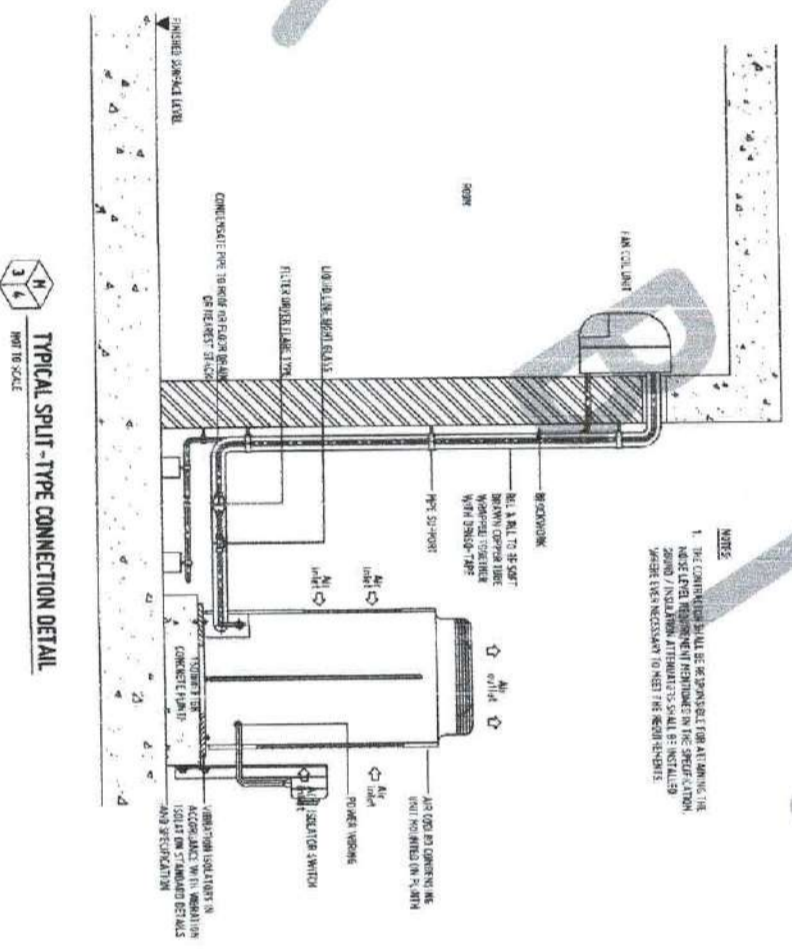
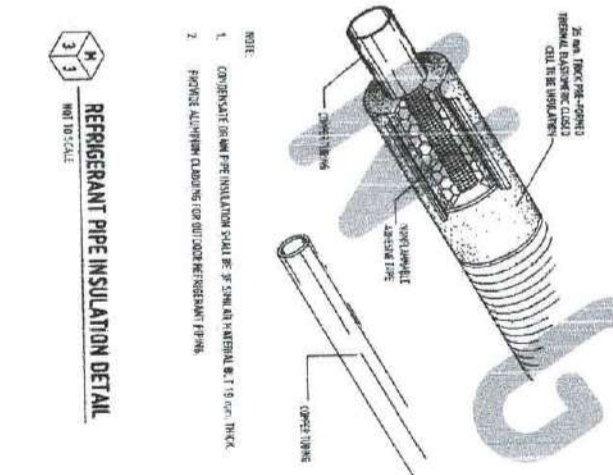
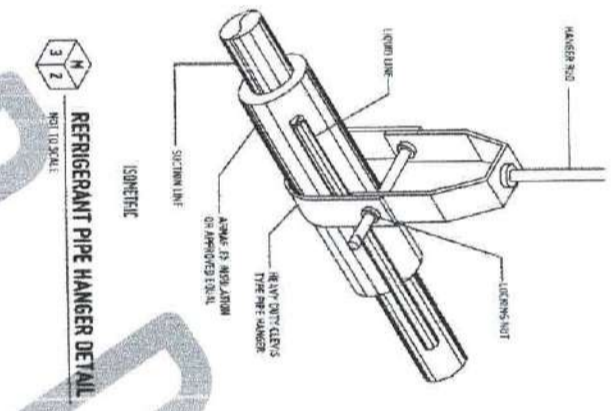
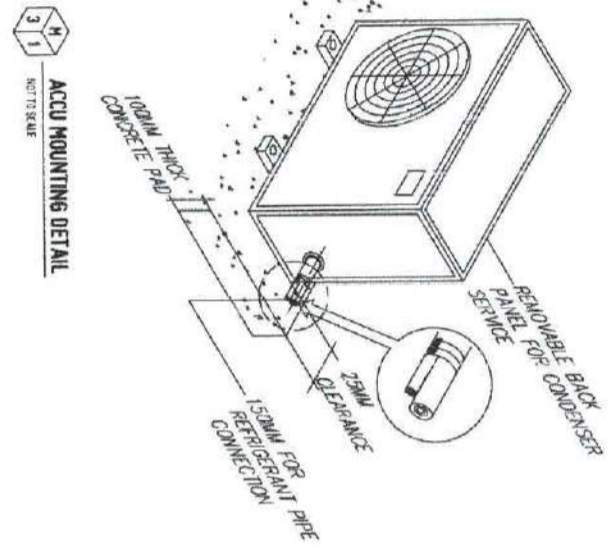
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**GENERAL NOTES:**

1. ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE PHILIPPINE NATIONAL BUILDING CODE, CODE DIVISION 10, DIVISION 1000, AND THE CODES OF THE PHILIPPINES AND OTHER REGULATIONS OF THE LOCAL GOVERNMENT.
2. THE FINAL SCOPE OF WORK SHALL INCLUDE ALL WORKS REQUIRED TO BE COMPLETED IN THE TECHNICAL SPECIFICATION FOR MECHANICAL WORKS.
3. THE WORK SHALL BE EXECUTED IN CLOSED CONFORMANCE WITH ALL CITY ORDINANCES.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, EQUIPMENT DATA SHEETS, AND ALL THE MATERIAL TO BE USED BEFORE PROCEEDING WITH THE WORK.
5. THE CONTRACTOR SHALL INSTALL ALL MATERIAL AND EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
6. ALL PIPE AND RIGID PENETRATION SHALL BE SEALED WITH FIRE RESISTANT MATERIAL.
7. ALL EQUIPMENT SHALL BE INSTALLED ON CONCRETE SLAB OR WALL WITH MINIMUM 100MM TO PREVENT THROUGH PENETRATION THROUGH THE WALL.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONCRETE AND ALL WORK OF ALL MECHANICAL EQUIPMENT.
9. THE CONTRACTOR SHALL PROVIDE THE PIPING, BRACING AND EQUIPMENT TO BE USED TO ACCESS THE WORK. CLEANING AND PAINTING SHALL BE DONE AFTER THE WORK IS COMPLETED.
10. A PIPING WORKING DRAWING SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY FOR THE COORDINATION OF MECHANICAL CONNECTION.
11. PROPOSED MECHANICAL CONNECTIONS AND CONNECTIONS SHALL BE ALL APPROVED BY THE ENGINEER.
12. PROVIDE FIRM BRACKET TO ALL HANGERS.
13. PROVIDE SEPARATE INSULATION HANGERS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MECHANICAL, ELECTRICAL AND COMMUNICATIONS OF THE WHOLE AND COORDINATE WITH ALL OTHER CONTRACTORS AND SUBMITTERS TO BE COMPLETED.
15. WORKMANSHIP: THE WORKMANSHIP SHALL BE EXECUTED IN ACCORDANCE WITH THE PHILIPPINE NATIONAL BUILDING CODE, CODE DIVISION 10, DIVISION 1000, AND THE CODES OF THE PHILIPPINES AND OTHER REGULATIONS OF THE LOCAL GOVERNMENT.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MECHANICAL, ELECTRICAL AND COMMUNICATIONS OF THE WHOLE AND COORDINATE WITH ALL OTHER CONTRACTORS AND SUBMITTERS TO BE COMPLETED.

**NOTES ON PIPING INSTALLATION:**

1. REFRIGERANT PIPES SHALL BE INTERNALLY CLEANED IN ACCORDANCE WITH CLEANING PROCEDURE TO REMOVE ALL DIRT, OIL, SWAGE, AND IMPURITIES FROM THE PIPE.
2. WHILE COOPERATING JOINTS, A SWEEP OF REEFER INSULATION SHALL BE PLACED THROUGH PIPES TO PREVENT CONTAMINATION OF INSULATION.
3. FITTINGS: USE STANDARD LINK HANGERS, COUPLERS, ELBOWS, REDUCERS, ETC. ON WALL OR FLOOR-TO-WALL CONNECTIONS. JOINTS BETWEEN PIPES SHOULD BE THROUGH STANDARD COUPLERS OR GASKETED JOINTS. GASKETS SHOULD BE MADE OF NON-FLUOROPOLYMER MATERIALS. JOINTS SHOULD BE MADE WITH STANDARD PLAIN WELDS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MECHANICAL, ELECTRICAL AND COMMUNICATIONS OF THE WHOLE AND COORDINATE WITH ALL OTHER CONTRACTORS AND SUBMITTERS TO BE COMPLETED.



REPUBLIC OF THE PHILIPPINES  
OFFICE OF THE BUILDING OFFICIAL  
VILLAMORADA, NEGROS ORIENTAL

APPROVED BY: \_\_\_\_\_

- GENERAL NOTES:**
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UNIVERSITY OF THE PHILIPPINES  
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FACSIMILE: (042) 707-40-40

PROFESSIONAL MECHANICAL ENGINEER  
NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_

PROJECT: PROPOSED 21ST CENTURY 5 STOREY CLASSROOM BUILDING  
LOCATION: USTP VILLAMORADA CAMPUS, NEGROS ORIENTAL  
OWNER: UNIVERSITY OF THE PHILIPPINES AND TECHNOLOGY OF SOUTHERN PHILIPPINES

RECOMMENDING AUTHORITY  
AR. FERDINAND V. MONTANO  
DIRECTOR

RECOMMENDING AUTHORITY  
DR. VICTOR A. MONTANO  
DIRECTOR

APPROVED BY:  
DR. AMBRASIA P. CULIURA II  
PRESIDENT, USTP SYSTEM

SHEET CONTENTS:  
NO. DESCRIPTION  
1. MECHANICAL WORKS  
2. ELECTRICAL WORKS  
3. COMMUNICATIONS WORKS

DATE: \_\_\_\_\_  
M3